AMERICAN PATENTS.—A patent has been taken by Mr. John A. Sprague, for an Improved Machine for Excavating and Conveying Earth. "The machine consists of wheels, axles, tongue, and forward bolster, of a common two-horse wagon, the fore and hind axles of which are coupled together by a frame, upon which, near the fore end, is a windlass, consisting of a lower cross timber, and two upright timbers, and an upper cross timber, and an iron shaft, and a rag wheel, and a crank." He claims the combination of the series of elevators with the scoop and a rising and falling earth bed furnished with an apparatus for emptying the same, the whole arranged and acting substantially as described. He also claims a regulator to the scoop attached in the manner and for the purposes specified.—Mr. Alanson Cary has a patent for an Improvement in Machines for Dressing Irregular Forms. "The nature of my invention," he says, "consists in a horizontal bench, in or near the centre of which is a circular table, which is fitted in such a manner to the bench as to be capable of receiving a circular motion: the table carries two slides, placed at right angles, one above the other, the lower one capable of sliding in a line across the circular table, and the upper one sliding in rebates or guides in the lower one at right angles to the direction in which the lower one itself slides: the work to be operated upon is secured by dogs to a plate above the top slide, and by means described, receives such a motion that a fixed point will mark the required pattern on the work: a rotary cutter is suspended on a swinging arm above the work: this is capable of being adjusted to take a cut of the required thickness, and while motion is given to the work in the required direction, it will cut it to the required form." The inventor claims the toothed wheel upon the shaft, "arranged so that it is capable of being thrown in gear with either of the racks, in combination with the dog on the slide and the notched projection on the table, by which the slide is locked to or unlocked from the table for the purpose of enabling the wheel to give either a rectilinear motion to the said slide, or a circular motion to the table, as may be required, in the manner and for the purposes substantially as set forth."

PROTECTION OF HOUSE PROPERTY.—The Nottingham and Nottinghamshire Owners' and Agents' Society for the Protection of House Property, on the 27th ult. held their first annual meeting, when a report was read from which it appears that the society has steadily progressed since its formation, its members now representing nearly 7,000 houses, and that its finances are in a healthy state, the benefits far surpassing even what at first was expected. A sum had been lost by the members during the past year, of nearly 100*l.* by parties clandestinely leaving the premises they had occupied; but in no one instance had these parties been able to obtain a tenement belonging to any other member, so that eventually they would find an asylum in the houses of non-members only.

STEAM BOILER EXPLOSIONS.—An apparently safe and simple mode of testing high-pressure boilers is suggested by a correspondent of a Manchester paper:—On a Saturday, after the engine is stopped, fill the boiler to be tested completely full of water, then work the force-pump attached to the engine *by hand*, loading the safety-valve to one-third more pressure than the boiler is commonly worked at. Any weak part that might be in the boiler would give way, without doing any damage other than pointing out the place wanting repair.—An apparatus to provide an efficient and constant supply of water to boilers has been patented by Mr. Gray, of Glasgow, engineer. It consists of an open iron ten-gallon cistern, placed over the top of the boiler. In the centre is a cylindrical three-gallon vessel, communicating with the interior of the boiler by two pipes, the smaller a steam-pipe, just entering the boiler, but passing to the top of cylinder; the larger one reaching nearly to the bottom of the boiler, but just entering the cylinder. At the top of each tube is a conical valve opening downwards, and in the bottom of the cylinder is a valve opening upwards, to admit water from the cistern. A lever is jointed on the edge of the cistern, forked to support a tundish, holding about two gallons, and so hung as to empty its contents on descending: on the other end is a weight heavier than the tundish when empty. Water is supplied to the latter by a pipe having a cock and ball float, which regulates the discharge. We have not room to describe the action of this apparatus, but it is said to be economical in cost, and not liable to get out of order.

COMPETITION FOR NEW TOWN-HALL, HEMEL HEMPSTEAD, HERTS.—We are informed that the committee appointed to adjudicate upon the drawings submitted for the above building, have decided upon erecting the design furnished by Mr. George Low, London. The style is Elizabethan.

STATUE FOR TRAFALGAR-SQUARE.—Allow me to suggest that the statue of King George, now deposed in Leicester-square, be placed on the vacant pedestal in Trafalgar-square, the non-occupation of which is unsightly:—the statue would then still remain in St. Martin's parish, of which I subscribe myself—AN EX-CHURCHWARDEN.

THE STATUES IN ST. PAUL'S CHURCH-YARD.—A correspondent calls attention to the state of the four statues at the base of that of Queen Anne, in St. Paul's Church-yard. He says the steps are disjointed, and asks "why should the costly works of the sculptor be so utterly neglected? A pair of old stockings are weekly looked after, and our mothers teach us that a stitch in time saves nine, and we all know that this applies to all stations, circumstances, and things in life. The same hint will apply to the cloisters at Westminster."

MODEL DWELLINGS AT BRIGHTON.—A branch of the metropolitan Association for Improving the Dwellings of the Poor, has been formed at Brighton. Lord Carlisle was in the chair at the numerous meeting at which it was resolved to form the branch association.

GLASS CHIMNEY-PIECES.—At a recent meeting of the Liverpool Architectural and Archæological Society, Mr. A. Forrest exhibited a glass chimney-piece, ¾-inch thick, enamelled with colour and gold. The substitution of glass for marble and other stones in architectural decoration has been already patented by Miss Wallace, of Fitzroy-square, as formerly described in THE BUILDER, and quoted from its columns by many of our contemporaries.

TENDERS

For repairs and alterations of the Borough Market, Southwark:—

H. W. Cooper	£1,998
Curtis	1,982
W. Holmes	1,635
Carter	1,570
Bowland and Evans	1,527
J. Cooper	1,490
T. Rider	1,440
J. and J. Coleman (accepted)	1,394
Walker and Soper	1,265

For a range of warehouses, Nottingham. Mr. T. C. Hine, architect, Nottingham. Quantities furnished:—

Pollock and McLennan	£5,920
Farrell and Griffiths	5,324
Atack	5,280
J. and B. Dales	4,949
Hall	4,780
Norman and Booth	4,765
Ferguson	4,675
C. C. and A. Dennett	4,595
Neale and Wilson (accepted)	4,585

For the erection of a new church at Fairfield, near Liverpool: Mr. Raffles Brown, architect:—

	In Bath and Upholland Stone.	In Woolton Stone.	If the Spire be not built. In Bath and Upholland Stone.	If the Spire be not built. In Red Stone.
	£	£. s.	£	£
G. Myers	4,396	4,396 0	3,960	4,186
A. Dempster	4,189	3,561 10	3,787	3,219
T. Haines	3,900	3,620 0	.....	.....
J. & W. Jones	3,880	3,550 0	3,300	3,320
A. & G. Holmes	3,577	3,184 0	3 197	2,913
H. Gates (accepted)	3,530	3,150 0	3,280	2,928

For building three pair of semi-detached cottages at Findsley, for Mr. W. Morgan. Mr. Espy, architect:—

Broughton	£3,370
Richardson	2,017
Taylor	1,788
Seal and Jackson (accepted)	1,696

For a set of wool rooms, &c., Nottingham. Mr. T. C. Hine, architect:—

Pollock and McLennan	£1,367
Atack	1,200
Farrell and Griffiths	1,145
Norman and Booth	1,090
Hall	1,074
Ferguson	1,038
J. and B. Dales	1,035
C. C. and A. Dennett (accepted)	1,030

For a new church, to be built at Clapham. Mr. J. Tarring, architect:—

Burton	£7,328
Holland	7,198
Haynes	7,020
Nesham	6,897
Nixon	6,736
Higgs	6,617
Piper	6,555
Brass	6,363
Myers	6,269

For two Italian Villas, for Mr. J. C. Hook, A.R.A.: Messrs. Castle and Jayne, architects. Quantities furnished.

Glenn	£1,692
Henry Burton	1,698
Haynes and Co.	1,410

TO CORRESPONDENTS.

Southwark.—"G. C." suggests that a cheerful and more agreeable aspect should be given by painting to Southwark Bridge.

"*Larch Wood.*"—A correspondent asks for information as to the *durability of larch*.

"*Draining Bedford Level.*"—Another inquirer wants to know what means are to be used to drain the great Bedford level.

"Senex" (we will see to it), "A. B.," "E. C.," "J. S." (Randall and Saunders, Bath), "C. F. D." (shall be); "Chanticleer" Crow), "Rev. R. C.," "Mr. P.," "Lord L.," "G. H.," "G. P.," "Mr. H.," "Oromaseb," "F. C. H.," "G. W.," "T. R.," "W. G.," "Dr. B.," "M. and A. O'C.," "S. L., jun.," "J. H." (we shall be glad to receive the information), "J. D. P.," "R. M.," "J. C.," "W. S.," "J. H. H." (a gallery has not yet been obtained for "The Architectural Exhibition"), "A. S.," "A Subscriber," "Something New" (by writing to Munich), "A Subscriber," Carlisle (advice on such data would but mislead: employ an architect), "S. K." (we cannot assist), "Messrs. H.," "R. B.," "M. P.," "W. M. and T.," "J. B. B. C.," "W. M.," "Constant Reader" (there is no foundation for the report as to plot of ground, Parliament-street), "J. S." (we are not aware of any further progress), "Rev. F. B. A." (we will send if practicable), "Marinus" (the best advice we can give is,—employ a competent architect), "B.," Folkstone (there is no general Act on the subject), "I. C. B.," "W. P." (if our correspondent refers to the *Ordnance Survey of London*, the map is not yet published), "G. W. B.," "E. B. T." (there are several theories; but we have not time to refer), "J. E.," "H. D. O." (five per cent. usually, unless amount be small, when more may be charged. Expenses may be added), "A Sailor" (we have often called attention to the matter justly complained of: repetition would be useless), "The Hand Book to the County Courts," by D. E. Colquhoune, Solicitor. Simpkin, Marshall, and Co. "Industrial Investment and Emigration, with an Appendix on Compound Interest, Tontines, &c." by A. Scratchley, M.A. 2nd edition. J. W. Parker. "Illustrations of Mediæval Costumes in England," collected from MSS. by E. A. Day and J. H. Dines. Part II. Bosworth. "A System of Apparatus for the Use of Lecturers and Experimenters in Mechanical Philosophy," by the Rev. R. Willis, M.A. F.R.S., &c., with three plates. J. Weale, High Holborn. "Société centrale Des Architectes. Bulletin pour L'exercice, 1851." Paris.

"*Books and Addresses.*"—We have not time to point out books or find addresses.

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